



FDA Facts: Frequently Asked Questions on Azodicarbonamide

What is azodicarbonamide (ADA)?

Azodicarbonamide (ADA) is a chemical substance approved for use as a whitening agent in cereal flour and as a dough conditioner in bread baking.

On what basis did FDA approve the use of ADA?

FDA approved the use of ADA as a food additive in cereal flour and as a dough conditioner based on a comprehensive review of safety studies, including multi-year feeding studies.

What has FDA done to continue to ensure the safe use of ADA in foods?

FDA has continued to evaluate the safe use of ADA in foods. Currently it is collecting data on the amounts of semicarbazide (SEM)—a breakdown chemical that forms when ADA comes in contact with water—found in baked goods sold in the U.S. Additionally, FDA is reviewing all available data on the safety of SEM and plans to reassess potential consumer exposure to it from bread products based on data from our current survey. This safety analysis will help FDA determine if any regulatory action needs to be taken.

What about studies that show breakdown products of ADA, specifically semicarbazide, to be a carcinogen?

During bread making, ADA completely breaks down to form other chemicals, one of which is SEM. At high levels, SEM has been shown to increase the incident of tumors when fed to female mice, but not to male mice or either gender of rat. These studies were conducted in rodents at levels of SEM that far exceed estimates of human exposure from the consumption of ADA-treated flour or bread products.

Does FDA recommend consumers change their diets?

Based on the science, FDA is not recommending that consumers change their diets because of exposure to ADA/SEM. FDA considers ADA a safe food additive when used for the purposes and at the levels specified in the FDA regulations.

How do I know whether bread products contain ADA?

ADA, like all ingredients intentionally added to food, must be listed on the ingredient label. Consumers are able to identify the addition of ADA by looking for “azodicarbonamide” on the label.

Is ADA necessary to make bread?

No. The use of ADA as a whitening agent and dough conditioner is not necessary to make bread and there are alternative ingredients approved for use available.

Does ADA have other uses?

Yes, ADA is also authorized for use as a blowing agent in sealing caps for food containers such as ketchup bottles. In 2005, the European Food Safety Authority (EFSA) assessed the risk from the use of ADA as a blowing agent and concluded that it is not of concern for human health given the levels that have been found in foods packaged in glass jars and bottles. However, EFSA had also noted that exposure to SEM should be limited where possible, and the European Union banned this use of ADA.

March 4, 2014